

**UNITED STATES AIR FORCE  
SCHOOL OF AEROSPACE MEDICINE**

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**Publications and Presentations  
of the Ophthalmology Branch,  
USAF School of Aerospace Medicine  
1960-1970**

Thomas J. Tredici

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**USAF School of Aerospace Medicine  
Clinical Sciences Division  
2507 Kennedy Circle  
Brooks AFB, TX 78235-5116**

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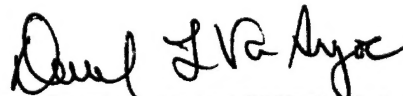
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THOMAS J. TREDICI, M.D.  
Project Scientist



DANIEL L. VAN SYOC, Col, USAF, MC, SFS  
Chief, Clinical Sciences Division

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PUBLICATIONS AND PRESENTATIONS OF THE OPHTHALMOLOGY BRANCH  
USAF SCHOOL OF AEROSPACE MEDICINE

OPHTHALMOLOGY BRANCH

1960 Publications

1. DIAGNOSTIC HEAD LIGHT FOR OCULAR MUSCLE TESTING  
*Tredici, T. J.*  
U.S. Armed Forces Medical Journal, Vol 2, No. 18, Oct 1960.
2. THE INFLUENCE OF KINESTHESIS UPON NEAR HETEROPHORIA  
MEASUREMENTS  
*Morris, F. M.*  
American Journal of Optometry and Arch. of American Academy of Optometry  
Vol 37, No. 7, July 1960.
3. A METHOD OF PHOTOGRAPHING FLUORESCENCE IN CIRCULATING  
BLOOD OF THE HUMAN EYE  
*Novatny, H. K., D. L. Alvis*  
60-82 Sch of Aviation Medicine Brooks AFB, Tx, Sept 1960.
4. RETINAL VASCULAR REACTIVITY IN PATIENTS WITH DIABETES  
MELLITUS AND WITH ATHEROSCLEROSIS  
*Hickam, J. B., H. O. Sieker*  
60-37 Sch of Aviation Med. Brooks AFB, Tx, Feb 1960.

## OPHTHALMOLOGY BRANCH

### 1960 Presentations

#### 1. VISUAL ASPECTS OF RADIATION EXPOSURE

*Culver, J. F.*

Presented at the 67<sup>th</sup> Annual Convention of the Association of Military Surgeons of the U.S., Wash D.C., Oct 1960.



PUBLICATIONS AND PRESENTATIONS OF THE OPHTHALMOLOGY BRANCH  
USAF SCHOOL OF AEROSPACE MEDICINE

OPHTHALMOLOGY BRANCH

1961 Publications

1. METHOD FOR PRODUCING WETTABLE SURFACES ON CONTACT LENSES  
BY CHEMICAL FORMATION OF INORGANIC FILMS  
*Erb, Robert A. (The Franklin Institute)*  
SAM Report 61-42, Mar 1961.
2. DEVELOPMENT OF PHOTOREACTIVE MATERIALS FOR EYE-PROTECTIVE  
DEVICES  
*Fox, Richard E. (The National Cash Register Company)*  
SAM Report 61-67, Apr 1961.
3. TRANSMITTANCE OF THE VISIBLE SPECTRUM THROUGH THE  
COMPONENTS OF THE BOVINE OCULAR MEDIA  
*Pitts, D. G.*  
Amer. J. Optom., Vol. 38: 572-586, 1961.
4. VISUAL ASPECTS OF RADIATION EXPOSURE  
*Culver, J. F.*  
Military Medicine, Vol 126, No. 9, Sep 61.
5. RECOVERY OF VISUAL DISCRIMINATION AFTER HIGH INTENSITY  
FLASHES OF LIGHT  
*Severin, Sanford L., N. L. Newton, J. F. Culver*  
SAM Technical Documentary Report 62-16, Dec 1961.
6. ALPHA-CHYMOTRYPSIN IN CATARACT SURGERY (ENZYMATIC  
ZONULOYSIS)  
*Tredici, Thomas J.*  
Military Medicine, Vol 126, No. 8, Aug 1961.
7. CONTACT LENSES FOR FLYING PERSONNEL (A RATIONALE FOR  
CURRENT POLICY)  
*Culver, J. F.*  
Aeromedical Digest, Vol XII, No. VII, 1961.
8. PRIMARY DEGENERATION OF THE RETINA (CASE REPORT)  
*Moore, J. F., J. F. Culver*  
Aerospace Medicine, Vol 32, No. 9, Sep 61.
9. COSMIC RADIATION  
*Zellmer, R. W., R. G. Allen, J. F. Culver*  
Aerospace Medicine, Vol 32, Oct 1961.

1961 Publications (continued)

STUDENT THESES

(Submitted in Partial Fulfillment of the Requirements of the  
Advanced Course in Aerospace Medicine – May 1961)

Experimental Work Performed Under the Direction of Lt Col J. F. Culver  
And Capt N. L. Newton, Ophthalmology Department  
Publications (10 thru 14)

10. THE EFFECTS OF SIMULATED ALTITUDE ON PENETRATING EYE  
INJURIES  
*J. Robert Dille*
11. RECOVERY OF VISUAL DISCRIMINATION AFTER HIGH INTENSITY  
FLASHES OF LIGHT  
*Sanford L. Severin*
12. RESULTS OF TONOGRAPHY AT A SIMULATED ALTITUDE OF 30,000 FT  
*James T. Moore*
13. AN EVALUATION OF A METHOD FOR STUDYING CORNEAL  
TOPOGRAPHY USING PHOTOGRAPHS OF OCULAR CASTS  
*Clifford L. Mayhew*
14. THE EFFECT OF PILOCARPINE MIOSIS ON VISUAL ACUITY UNDER  
CONDITIONS OF COCKPIT ILLUMINATION—A POSSIBLE PROTECTION  
AGAINST FLASHBLINDNESS  
*Howard A. Minners*
15. RESULTS OF PREFLIGHT AND POSTFLIGHT MEDICAL EXAMINATIONS  
*Jackson C. B., W. K. Douglas, J. F. Culver*  
Proceedings of Conference on Results of the First U.S. Manual Suborbital Space  
Flight, June 1961.

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### 1961 Presentations

1. PROTECTIVE GLASSES AGAINST ATOMIC FLASH  
*Culver, James F. A. V. Alder*  
Presented at the AGARD, NATO Meeting, Lisbon, Portugal, Apr 61.
2. VISUAL ASPECTS OF SPACE FLIGHT  
*Morris, Floyd M.*  
Presented at the Annual Meeting of the American Academy of Optometry, Chicago, Illinois, Dec 61.
3. EARLY OCULAR EFFECTS OF HIGH ENERGY PROTON AND ALPHA RADIATION  
*Culver, J. F., N. L. Newton*  
Presented at the Aerospace Medical Association Meeting, Apr 61.
4. A NEW APPROACH TO THE STUDY OF FLASH BLINDNESS—USE OF THE ZEISS LIGHT COAGULATOR  
*Severin, S. L., N. L. Newton, J. F. Culver*  
Presented at the Mid-Southern Section Association for Research in Ophthalmology, 9-12 Nov 61, Oklahoma City, Okla.
5. COMPLICATIONS ASSOCIATED WITH THE WEARING OF CONTACT LENSES  
*Morris, Floyd M.*  
Presented at the South Central Texas Dispensing Opticians Society Meeting, 23 Jul 61, San Antonio, Texas.

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OPHTHALMOLOGY BRANCH

1962 Publications

1. THE EFFECTS OF SIMULATED ALTITUDE ON PENETRATING EYE INJURIES  
*Dille, J. R., N. L. Newton, J. F. Culver*  
FAA Research Div. 62-12, May 62 and Aerospace Med Vol 33, Dec 62.
2. GLAUCOMA SCREENING IN AEROMEDICAL EXAMINATION  
*Clark, W. B., J. F. Culver*  
Aerospace Medicine Vol 33, Dec 1962.
3. HIGH SPEED PHOTOGRAPHIC STUDY OF PERFORATING OCULAR INJURY  
BY THE BB.  
*Tillett, C. W., H. W. Rose, C. Herget*  
AJO Vol 54, No. 4, Oct 1962.
4. VISUAL ASPECTS OF SPACE FLIGHT  
*Morris, F. M.*  
Am Journal of Optometry and Arch of AAO, Dec 1962.
5. A NEW APPROACH TO THE STUDY OF FLASHBLINDNESS  
*Severin, S. L., N. L. Newton, J. F. Culver*  
Archives of Ophth. Vol 67, pp. 578-582, May 1962.
6. A STUDY OF PHOTOSTRESS AND FLASHBLINDNESS  
*Severin, S. L., N. L. Newton, J. F. Culver*  
SAM-TDR-62-144, Dec 1962.
7. AN EXPERIMENTAL APPROACH TO FLASHBLINDNESS  
*Severin, S. L., N. L. Newton, J. F. Culver*  
Aerospace Med Vol 33, pp. 1191-1205, Oct 1962.
8. ACUTE NARROW-ANGLE GLAUCOMA-A CASE REPORT  
*Mayhew, C. L., J. F. Culver*  
Aerospace Medicine Vol 33, pp. 741-742, June 1962.
9. RECOVERY OF VISUAL DISCRIMINATION AFTER HIGH INTENSITY  
FLASHES OF LIGHT  
*Severin, S. L.*  
USAFSAM-TR-62-16, Jan 1962.

1962 Publications (continued)

10. SPACE OPHTHALMOLOGY

*Culver, J. F.*

XIX Concilium Ophthalmologicum Vol II, 1962.

11. VISUAL ASPECTS OF RADIATION EXPOSURE

*Culver, J. F.*

Survey of Ophthalmology, Oct 1962.

12. PRODUCTION OF CHORIORETINAL BURNS BY NUCLEAR DETONATIONS  
AND TESTS OF PROTECTIVE DEVICES AND PHOTOTROPIC MATERIALS

*Allen, R. G., E. O. Richey, J. F. Culver, N. L. Newton, A. V. Alder, R. W. Zellmer*  
Operation Dominic Proj 4.1, Dec 1962.

13. PROTECTIVE GLASSES AGAINST ATOMIC FLASH

*Culver, J. F., A. V. Alder*

In Visual Problems in Aviation Medicine the MacMillian Co. N.Y., NY, 1962.

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1. OCULAR HAZARDS OF PARTICULATE SPACE RADIATION  
*Culver, James F., R. W. Zellmer, N. L. Newton*  
Presented at the AGARD-NATO Aerospace Medical Panel Meeting, Paris, France, 6-10 July 1962.
2. GLAUCOMA SCREENING IN AEROMEDICAL EXAMINATIONS  
*Clark, William B., J. F. Culver*  
Presented at the Aerospace Medical Association Meeting, Atlantic City, New Jersey, 9-12 April 1962.
3. AN EXPERIMENTAL APPROACH TO FLASH BLINDNESS  
*Severin, Sanford L., N. L. Newton, J. F. Culver*  
Presented at the Aerospace Medical Association Meeting, Atlantic City, New Jersey, 9-12 April 1962.
4. THE EFFECTS OF SIMULATED ALTITUDE ON PENETRATING EYE INJURIES  
*Dille, J. Robert, N. L. Newton, J. F. Culver*  
Presented at the Aerospace Medical Association Meeting, Atlantic City, New Jersey, 9-12 April 1962.
5. A SIMPLE METHOD OF CHORIORETINAL BURN PROTECTION  
*Minners, H. A., N. L. Newton*  
Presented at the Section on Military Medicine, American Medical Association, Chicago, Illinois, 26 June 1962.
6. PROTON RADIATION EFFECTS IN PRIMATES  
*Zellmer, R. W., J. F. Culver, J. E. Pickering*  
Presented at the Second International Congress of Radiation Research, Harrogate, England, Aug 1962.
7. SPACE OPHTHALMOLOGY  
*Culver, James F.*  
Presented at the XIXth International Congress of Ophthalmology, New Delhi, India, 3-7 Dec 62.

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PUBLICATIONS AND PRESENTATIONS OF THE OPHTHALMOLOGY BRANCH  
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1963 Publications

1. OCULAR HYPEROXIA

*Beehler, C. C., N. L. Newton, J. F. Culver, T. J. Tredici*  
Aerospace Medicine Vol 34, No. 11, Nov 1963.

2. NUCLEAR EXPOSURE EFFECTS

*Culver, J. F.*  
The Fight-Saving Review, Spring 1963.

3. AEROMEDICAL EVALUATION FOR SPACE PILOTS - OPHTHALMOLOGY  
EVALUATION

*Clark, W. B., S. L. Severin, J. F. Culver*  
USAFSAM, July 1963.

4. INTRAOCULAR PRESSURE AQUEOUS OUTFLOW AND GLAUCOMA AT  
ALTITUDE

*Newton, N. L., W. B. Clark, J. F. Culver, J. T. Moore*  
AJO Vol 56, No. 2, Aug 1963.

5. THE AEROMEDICAL PROBLEM OF GLAUCOMA

*Culver, J. F., W. B. Clark*  
Aerospace Medicine Vol 34, No. 11, Sept 63.

6. PHOTOSTRESS AND FLASHBLINDNESS IN AEROSPACE OPERATIONS

*Severin, S. L., A. V. Adler, N. L. Newton, J. F. Culver*  
Aerospace Medicine Vol 34, No. 12, Dec 63.

7. A STUDY OF PHOTOSTRESS AND FLASHBLINDNESS

*Severin, S. L., N. L. Newton, J. F. Culver*  
Amer Journal of Ophth. Vol 56, No. 4, Oct 1963.

8. EARLY OCULAR EFFECTS OF HIGH ENERGY PROTON AND ALPHA  
RADIATION

*Culver, J. F., N. L. Newton*  
Ophth Branch Project Paper, Aug 1963.

9. THE PHOTOSTRESS TEST FOR THE EVALUATION OF MACULAR FUNCTION

*Severin, S. L., J. Y. Harper, J. F. Culver*  
SAM-TDR-63-47, June 1963.

1963 Publications (continued)

10. PHOTOSTRESS TEST FOR THE EVALUATION OF MACULAR FUNCTION  
*Severin, S. L., J. Y. Harper Jr., J. F. Culver*  
Archives of Ophth, Vol 70, pp. 593-597, Nov 1963.
11. THE PROBLEM OF HETEROTROPIA IN TRAINED PILOTS  
*Clark, W. B., J. F. Culver*  
Aerospace Medicine Vol 34, No. 8, Aug 63.
12. PRODUCTION OF CHORIORETINAL BURNS BY NUCLEAR DETONATIONS  
AND TESTS OF PROTECTIVE DEVICES  
*Allen, R. G., E. O. Richey, J. F. Culver, N. L. Newton, A. V. Alder*  
Operation Dominic Proj 4.1, Feb. 1963.

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### 1963 Presentations

#### 1. THE AEROMEDICAL PROBLEM OF GLAUCOMA

*Culver, James F., W. B. Clark*

Presented at the Aerospace Medical Association Meeting, Los Angeles, California, 29 April 1963.

#### 2. OCULAR EFFECTS OF NUCLEAR DETONATIONS

*Culver, James F.*

Presented at the Nuclear Weapons Medical Symposium, Field Command, DASA, Sandia Base, Albuquerque, New Mexico, 22-26 Apr 1963.

#### 3. THE PROBLEM OF HETEROTROPIA IN TRAINED PILOTS

*Clark, William B., J. F. Culver*

Presented at the Aerospace Medical Association Meeting, Los Angeles, California, 29 April 1963.

#### 4. PHOTOS AND FLASH BLINDNESS IN AEROSPACE OPERATIONS

*Severin, Sanford L., A. V. Alder, N. L. Newton, J. F. Culver*

Presented at the Aerospace Medical Association Meeting, Los Angeles, California, 29 April 1963.

#### 5. OCULAR HYPEROXIA

*Beehler, C. C., N. L. Newton, J. F. Culver, T. J. Tredici*

Presented at the Aerospace Medical Association Meeting, Los Angeles, California, 29 Apr 63.

#### 6. THE AEROMEDICAL PROBLEM OF GLAUCOMA

*Culver, James F., W. B. Clark*

Presented at the Aerospace Medical Association Meeting, Los Angeles, California, 29 April 1963.

#### 7. CONTACT LENSES IN AVIATION AND SPACE

*Morris, Floyd M.*

Presented at the AOA Contact Lens Symposium, at Ohio State University, Columbus, Ohio, 3 Feb 1963.

#### 8. THE OPTOMETRIST AS A MEMBER OF THE AIR FORCE MEDICAL SERVICE TEAM

*Morris, Floyd M.*

Presented at the Florida Optometric Association Meeting, Tampa, Florida, 14 June 1963.

1963 Presentations (continued)

9. CONTACT LENSES FOR FLYING PERSONNEL—A CLINICAL INVESTIGATION  
*Morris, Floyd M.*  
Presented at the Second World Contact Lens Congress, Chicago, Illinois, 4-7 Aug 1963.
10. VISUAL ASPECTS OF THE PHYSICAL EXAMINATION FOR FLYING (VISUAL REQUIREMENTS FOR FLYING)  
*Morris, Floyd M.*  
Presented at the 66<sup>th</sup> annual meeting of the American Optometric Association, Minneapolis, Minnesota, 20 July 1963.
11. RETINAL DETACHMENT IN ANIMALS RESULTING FROM OXYGEN TOXICITY  
*Beehler, Cecil C.; N. L. Newton, J. F. Culver, T. J. Tredici*  
Presented at the Fifth International Symposium on Space Technology and Science covering Space Medicine, Tokyo, Japan, 2-7 Sep 63.
12. CHORIORETINAL BURN PROBLEM  
*Culver, James F.*  
Presented at the ACLANT Medical Officer's Symposium, Naval Medical Research Institute, National Naval Medical Center, Bethesda, Maryland, 29-30 Oct 1963.
13. CHORIORETINAL BURNS AND PROTECTIVE DEVICES  
*Allen, Ralph G., J. F. Culver, E. O. Richey*  
Presented at Operation Fish Bowl Symposium, 5-7 November 1963, Chicago, Illinois (SRD).
14. FLASHBLINDNESS AND PROTECTIVE DEVICES  
*Alder, Albert V.*  
Presented at the Medical Aspects of Advanced Warfare Course (Instructional Course), Gunter AFB, Alabama, 4 November 1963.

PUBLICATIONS AND PRESENTATIONS OF THE OPHTHALMOLOGY BRANCH  
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OPHTHALMOLOGY BRANCH

1964 Publications

1. CONTACT LENSES FOR FLYING PERSONNEL-A CLINICAL INVESTIGATION  
*Morris, F. M.*  
Contacto 8(1), Mar 1964.
2. SPACE OPHTHALMOLOGY PROBLEMS  
*Clark, W. B., J. F. Culver*  
Proceedings of the 3<sup>rd</sup> International Symposium on Bioastronautics and the  
Exploration of Space, Nov 1964.
3. VISUAL RECOVERY FROM BRIEF EXPOSURE TO VERY HIGH LUMINANCE  
LEVELS  
*Fry, G. A., N. D. Miller*  
SAM Technical Doc. Rpt. 64-36, Task (630103), Aug 1964.
4. RETINAL DETACHMENT IN ADULT DOGS RESULTING FROM OXYGEN  
TOXICITY  
*Beehler, C. C., N. L. Newton, J. F. Culver, T. J. Tredici*  
Archives of Ophthalmology, Vol 71: 665-670, May 1964.
5. HUMAN CHORIORETINAL BURNS FOLLOWING HIGH ALTITUDE NUCLEAR  
DETONATIONS  
*Culver, J. F., N. L. Newton, R. Penner, R. W. Neidlinger*  
Aerospace Medicine, Vol 35, No. 12, Dec 1964.
6. THE VANISHING DISQUALIFICATION (CORNEAL ENDOTHELIAL  
DYSTROPHY)  
*Howard, J. L., J. F. Culver*  
Aerospace Medicine, Vol 35, No. 8, Aug 1964.
7. A SIMPLE METHOD OF CHORIORETINAL BURN PROTECTION  
*Minners, H. A., N. L. Newton*  
Aerospace Medicine, Vol 35, No. 7, July 1964.
8. HEMATOMA BENEATH THE RETINAL PIGMENT EPITHELIUM  
*Tredici, T. J., R. H. Fenton*  
Archives of Ophth, Vol 72, pp.796-799, Dec 1964.
9. HEMATOMA BENEATH THE RETINAL PIGMENT EPITHELIUM  
*Tredici, T. J.*  
In System of Ophthalmology edited by Sir Stewart Duke-Elder, Henry Kimpton,  
Vol IX, London, 1964.

1964 Publications (continued)

10. MILITARY ASPECTS OF SATELLITE-TO-EARTH VISIBILITY  
*Clark, W. B., F. M. Morris, J. F. Culver*  
Lectures in Aerospace Medicine, USAFSAM, Brooks AFB, TX, Feb 1964.
11. OXYGEN AND THE EYE  
*Bechle, C. C.*  
Review 3-64, USAFSAM, Brooks AFB, TX, Feb 1964.
12. VISUAL REQUIREMENTS FOR FLYING  
*Jampalsky A, A. Morris, W. L. Erdbrink, R. Feinberg, D. G. Pitts*  
Report of Working Group #20, NRC-Armed Force Comm on Vision, June 1964.
13. NUCLEAR WEAPONS OPTICAL INFRA-RED PHENOMENA AND THEIR EFFECTS ON AIR FORCE SYSTEMS  
*Richey, E. O.*  
AFSC Manual 500, July 1964.
14. HYPERTROPHIC CORNEAL SCARS (KELOIDS)  
*Tredici, T. J.*  
Survey of Ophthalmology, Vol 9, No. 6, Dec 1964.
15. THE POSITIVE AFTER-IMAGE AND MEASUREMENTS OF LIGHT AND DARK ADAPTATION  
*Fry, Glenn A.*  
Final Report on Contract AF33 (657)-9615, Ohio State Univ. Columbus, Ohio, 31 Oct 1964.
16. RESEARCH ON TRIPLET STATES AND PHOTOCHROMISM  
*Windsor, M. W., D. Weber*  
Final Report on Contract AF41 (609)-1457 Space Technology Lab, Redondo Beach, CA, Jan 1964.
17. INTRAOCULAR PRESSURE, AQUEOUS OUTFLOW, AND GLAUCOMA AT ALTITUDE  
*Newton, N. L., W. B. Clark, J. T. Moore, J. F. Culver*  
Sight Savings Review (Abstract), 1964.
18. VISUAL RECOVERY FROM BRIEF EXPOSURES TO VERY HIGH LUMINANCE LEVELS  
*Fry, G. A., N. D. Miller*  
Contract AF33 (657-9229), Ohio State Univ Res. Foundation, Columbus, Ohio, Aug 1964.

## OPHTHALMOLOGY BRANCH

### 1964 Presentations

1. NUCLEAR WEAPONS EFFECTS RESEARCH PROGRAM FOR FY 1966 OF THE OCULO-THERMAL SECTION, OPHTHALMOLOGY BRANCH  
*Loper, L. R.*  
Presentation at the Air Force Weapons Laboratory, Kirtland AFB, New Mexico, March 1964 – Task 630103.
2. OCCUPATIONAL VISION IN THE AIR FORCE AND THE ROLE OF THE OPTOMETRIST IN THE AIR FORCE  
*Kislin, Benjamin*  
Presented at the annual convention of the Oklahoma Optometric Association, 2-5 May 1964 – Task 775505.
3. VISUAL PROBLEMS ASSOCIATED WITH AEROSPACE FLIGHT  
*Morris, Floyd M.*  
Presented at the annual convention of the Oklahoma Optometric Association, 2-5 May 1964 – Task 775505.
4. HUMAN CHORIORETINAL BURNS FOLLOWING HIGH ALTITUDE NUCLEAR DETONATIONS  
*Culver, James F., N. L. Newton, Robert Penner, R. W. Neidlinger*  
Presented at the 35<sup>th</sup> annual scientific meeting of the Aerospace Medical Association, 14 May 1964, Bal Harbour, Florida – Task 630103.
5. EYE PROTECTION IN THE AIR FORCE  
*Kislin, Benjamin*  
Presented at the American Optometric Association Congress, New York, New York, 28 June-3 July 1964, Task 630103.
6. OPERATION DOMINIC (DOCUMENTARY FILM)  
*Richey, Everett O. (Co-Editor on script for technical accuracy)*  
Cook Electric Company, Martin Grove, Illinois, August 1964 – Task 630103.
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Monitor: Thomas J. Tredici, Lt Colonel, USAF, MC  
Work Unit 7755090 6

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*Dunsky, I. L., P. W. Lappin*  
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*Epstein, D. L*

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12. AZY 91270 OPHTHALMOLOGY SURGICAL TECHNICIAN COURSE C170A  
(5 WEEKS DURATION)

*Arnold, D. L. M MSgt-Course Supervisor*

This is the first course for ophthalmology technicians in the Armed Forces, begins  
19 Jan 1970.

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